



सत्यमेव जयते

GOVERNMENT OF INDIA  
MINISTRY OF  
COMMERCE & INDUSTRY

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*Report*  
OF THE  
**INDIAN TARIFF BOARD**  
ON THE  
**STARCH**

(Inquiry under Section 4(1) of the Indian Tariff Act, 1934)

सत्यमेव जयते

**BOMBAY**

1951

THE PRESS, NEW DELHI.

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**Dr. B. V. Narayanaswamy Naidu** . . . **Member.**



GOVERNMENT OF INDIA  
MINISTRY OF COMMERCE AND INDUSTRY

RESOLUTION  
(Tariffs)

New Delhi, the 20th May, 1952.

No.12(3)-T.B./51.- The Tariff Board has investigated the claim of the Starch Industry for an increase in the protective rates of duty on starch, farina and sago flour under Section 4(1) of the Tariff Act, 1934 and submitted its report. Its recommendations are as follows:-

- (i) So long as the present import control policy is continued, there will be no need to increase the duties on maize starch, farina and sago flour.
- (ii) Having regard to the facts (a) that a categorical assurance of protection to the starch industry was given by Government in 1941, (b) that a certain minimum quantity of maize starch would be required for the textile industry in any case, (c) that the starch industry provides the basis for a number of other valuable industries, such as penicillin, oils, vitamins, dextrine, dextrose, glucose, paints, varnishes, sound-proof boards, plastics, proteins and different kinds of valuable cattle feed, it is desirable that the existing protection should be continued and that all other assistance, such as reasonable allocation of maize and facilities for importation of machinery, should continue to be given to the industry.
- (iii) The present policy, which is a combination of moderate duties with the regulation of imports, while affording adequate protection to the industry serves to keep the burden of protection at the minimum level. The present measure of protection, however, can be adequate, provided the textile industry, in pursuance of what would amount to its own enlightened self-interest, agrees to support the starch industry by lifting the output of starch so as to prevent its accumulation at the starch factories.

(iv) As regards the suitability of tamarind kernel powder as a sizing material, evidence on the subject is conflicting and it has not been possible to record any definite finding on it. Government should, however, continue to encourage research and developmental work on tamarind kernel powder and if and when the results are found to be satisfactory, Government should take steps to enlist the co-operation of the cotton textile industry to popularise its use as a sizing agent, particularly in view of the availability of the raw material in the country and the comparative cheapness of the product.

2. As regards (i), having regard to all aspects, Government have decided, with the concurrence of the Tariff Commission, that the protective duties on starch, farina and sago flour should be increased from 20% (exclusive of surcharge) to 30% (exclusive of surcharge).

3. As regards (ii) Government accept the recommendation that the protection to the industry should be continued and have decided, in consultation with the Tariff Commission, that the period should be extended by a further period of three years.

4. As regards recommendation (iv), Government are advised that tamarind kernels, if properly processed, yield a powder suitable for use as starch. They consider that it is desirable for this powder to be used in place of maize and other starches or in admixture with such starches not only in view of its cheapness and the availability of the raw materials in India but also because of the need to restrict imports of maize for use as food only, as far as possible. They, therefore, propose to take suitable measures within six months to ensure compulsory use or sale or admixture of tamarind kernel powder up to 50% of the total quantity of sizing material used or sold or manufactured by the consumers or dealers or manufacturers except for such special varieties as may be exempted for the purpose.

5. The attention of the textile industry is invited to recommendation (iii).

K.N. KAUL,  
Joint Secretary to the Government of India.

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## REPORT ON THE STARCH INDUSTRY

(Inquiry under Section 4(1) of the Indian Tariff Act, 1934)

History of  
protection. 1. Early in 1940, Government had announced that industries promoted by direct Government encouragement during wartime might feel assured that, if they were conducted on sound business lines, they would be protected against unfair competition from outside by such measures as Government might devise. In accordance with this decision, an assurance of protection was given to the starch industry by the Government of India (late Commerce Department) Resolution No.261-T(2)/45, dated 20th August, 1944, which stated that

"The Government of India have decided to give an assurance to the starch industry that it will, by such means as Government may devise, be protected after the war against unfair competition from abroad provided it is established that the industry is and has been conducted on sound business lines."

The industry was, however, actually protected for the first time by the Government of India (late Ministry of Commerce) Resolution No.218-T(18)/47, dated 12th April, 1948. The scheme of protection, as recommended by the Board in its first Report on the industry (January, 1947) and as accepted by Government in the above Resolution, was as follows:-

(1) The then current revenue duty on starch at the rate of 18 per cent. *ad valorem* was to be converted into a protective duty at the same rate, and this was to remain in force up to 31st March, 1950. As the estimate of fair selling price of Rs. 35/- per cwt. for the indigenous product was based upon a purchase price of Rs. 190/- per ton



of maize, any variation in the price of maize, during the currency of protection, was to be taken into account in determining the fair selling price of starch and, therefore, also in fixing the quantum of protection. Further, if the landed cost of imported Pearl Starch fell below Rs. 35/- per cwt., Section 4(1) of the Tariff Act was to be invoked.

(ii) If the price of imported pink sago flour fell below Rs. 25/- per cwt. or that of white lingga fell below Rs. 30/- per cwt., a duty was to be imposed on sago flour (which was then duty-free) so that the landed cost was not less than Rs. 25/- in the case of the pink sago flour or Rs. 30/- in the case of the white variety.

2. In the Government Resolution, it was further stated that Government would consider the question of allocating, as recommended by the Board, about 50,000 tons of maize to the starch industry, in order to enable the factories to work at least up to half of their rated capacity, until such time as the food position eased.

3. In its letter dated 29th March, 1949 and 28th April, 1949, the Anil Starch Products, Ltd., Ahmedabad, on behalf of the industry, applied to the Board for a revision of the protective duty on the following grounds:-

(i) that the landed costs of pink sago flour has fallen below Rs. 25/- per cwt. and that of white sago flour below Rs. 30/- per cwt., and that, therefore, in pursuance of Government Resolution of 12th April, 1948, a suitable protective duty should be levied on imports of sago flour;

(ii) that, whereas the Tariff Board, in estimating costs had taken a price of Rs. 190/- per ton for maize, the price at which the factories had actually purchased deteriorated maize from Government was Rs. 250/- per ton, which had raised the cost and fair selling price of starch above the figure estimated by the Board in 1947, and that this increase in cost called for an enhancement of the duty; and

(iii) that, as indigenous starch had been meeting with severe competition from imported farina as well as imported starch, the imported farina should be brought within the scope of the protective duties.

4. The industry thus claimed (a) that the duty on imported starch should be enhanced, (b) that sago flour which was duty-free, should be subjected to a protective duty and (c) that imported farina which also competed with indigenous starch but was subject only to a revenue duty, should be brought within the scope of the protective duties. The Board, in the first instance, had undertaken a limited inquiry under Section 1(1) of the Tariff Act. As, however, the inquiry was proceeding, the Board found that the period of protection to the industry would be expiring on 31st March, 1950. It was, therefore, considered to be necessary to enlarge the scope of the inquiry with a view to determining whether protection to the industry should be extended for a further period beyond 31st March, 1950, and if so, what the measure of such protection should be.

5. The main recommendations made by the Board in its Second Report on the starch industry (2nd September, 1949) were as under :-

- (i) that protection to the industry should be continued for a further period of two years ending 31st March, 1952;
- (ii) that the protective duty on starch should be raised from 18 per cent. to 20 per cent. *ad valorem*;
- (iii) that the revenue duty on imported farina should be converted into a protective duty and that the duty should be raised from 18 per cent. to 20 per cent. *ad valorem*;
- (iv) that a protective duty at the rate of 20 per cent. *ad valorem* should be levied on imported sago flour; and

- (v) that, if the price of maize varied significantly from Rs. 10/- per maund, the fair selling price of indigenous starch should be re-estimated and the quantum of protection suitably revised.

Government accepted these recommendations and gave effect to them in their Resolution No. 12(5)TB/49, dated 1st December, 1949.

6. In its letter dated 22nd May, 1951, the All India Starch Manufacturers' Association, Bombay, stated that, in pursuance of Government Notification No. 63-ITC(PN)/50, dated 25th July, 1950, announcing their decision to issue licences for imports of maize for starch manufacture, the Association had obtained such licences, that the imports of maize had already arrived and that the member factories had started the manufacture of starch. The Association further mentioned that it had obtained licences also for 1951 for imports of maize and that the starch industry, consequently, was expected to continue to be in production for a fairly long period of time. It was, however, pointed out that, while, owing to an increase in the landed cost of imported maize, the cost of manufacture and the fair selling price of indigenous starch had increased by Rs. 20 per cwt., the landed cost of the competing imports, viz., maize starch, sago flour and farina had increased much less, with the result that the quantum of protection to the industry had diminished and the industry was faced with severe competition from imports. The Association, therefore, requested that action should be taken under Section 4(1) of the Tariff Act to increase the quantum of protection; and it proposed that the rate of protective duty be raised from the current rate of 20 per cent. to 45 per cent. in the case of starch, 48 per cent. in the case of farina and 85 per cent. in that of sago flour.

7. In its subsequent letter dated 14th June, 1951, the Association suggested that, in estimating the cost of pro-

duction and fair selling price of indigenous maize starch, the Board should only take into consideration the increase in cost due to the increase in the price of maize and neglect the changes in the other items of cost which had also gone up appreciably since the previous inquiry of the Board. This suggestion was intended to enable the Board to complete the inquiry in a short time by dispensing with an elaborate cost investigation, particularly in view of the fact that the actual production of starch had been insignificant in 1950, being only 910 tons as compared with the relative rated capacity of 18,300 tons for the five factories which had been intermittently in production during the year.

8. Section 4(1) of the Tariff Act, which empowers the Central Government to increase or decrease,   
 Section 4(1) of   
 the Tariff Act. by executive orders, the rate of protective duty so as to maintain the degree of protection as recommended by the Board and/or as intended by the Legislature, is quoted below:-

"Where, in respect of any article chargeable under the First Schedule with a duty characterised in the third column thereof as protective, the Central Government is satisfied after such inquiry as it thinks necessary, that such duty has become ineffective or excessive for the purpose of securing the protection intended to be afforded by it to a similar article manufactured in India, it may, by notification in the official Gazette, increase or reduce such duty to such extent as it thinks necessary either generally or in respect of such article when imported from or manufactured in any country or countries specified in the notification:

Provided that the duty leviable on any such article shall in no case be less than the duty leviable on a like article of British manufacture."

9. Until 23th February, 1949, the procedure laid down for inquiry under Section 4(1) of the Tariff Act was that the necessary application was to be submitted by the industry concerned to the Government of India in the late Ministry of Commerce, and the Ministry, if they were satisfied that

there was a prima facie case for an alteration of the duty, would refer the case to the Tariff Board for investigation. This procedure necessarily involved a certain amount of delay. Early in 1949, when Government, in pursuance of a policy of dis-inflation, placed a large number of articles on the Open General Licence, heavy imports of certain articles took place. Thereupon, certain protected industries made strong representations that their position had been jeopardised by the policy of Open General Licence, and they claimed that import control should be reimposed and/or that the protective duties should be enhanced without delay. Government felt that the needs of the situation could be adequately met by arranging to have the necessary inquiries under Section 4(1) of the Tariff Act conducted in an expeditious manner, and with that end in view, issued Resolution No. 30-T(1)/49, dated 26th February, 1949, authorising the Tariff Board to receive applications for enhancement of duty under Section 4(1) of the Tariff Act direct from the industries concerned, and conduct the necessary inquiries and forward its recommendations to Government. It is in pursuance of this Resolution that the application of the starch industry for an enhancement of duty was entertained and the present inquiry has been undertaken.

10. Early in June, 1951, the Board addressed the Collectors of Customs and a few leading importers, requesting them to forward to the Board detailed figures regarding the c.i.f. prices and landed costs of maize starch, sago flour, farina and maize. The Board also requested the Textile Commissioner, Government of India, to furnish a detailed memorandum on the availability of supplies of starch and the demand for it on the part of the cotton textile industry, current prices of different kinds of starch, etc. Three representative factories, viz., Anil Starch Products, Ahmedabad, Rampur Maize Products, Rampur, and Sukhjiti Starch and Chemicals, Phagwara, Punjab (I), were asked to supply the Board with their estimates of costs of production. Statistics of im-

ports of different kinds of starch were obtained from the Director-General of Commercial Intelligence and Statistics, Calcutta. The Ministry of Food and Agriculture, Government of India, were requested to furnish information on the quantities of maize which had been permitted by Government to be imported by the starch industry. The Millowners' Associations, Bombay and Ahmedabad, were also addressed to communicate to the Board their views on the application of the Starch Manufacturers' Association for an enhancement of the duty. The Board met the representatives of the Bombay Millowners' Association on 7th August, 1951. A public inquiry was held on 8th August, 1951. Two representatives of the Ministry of Food and Agriculture met the Board on 24th August, 1951. A list of persons who met the Board and gave oral evidence on different dates is given in Appendix I.

11. In its first Report on the starch industry (1947), the Board, after taking into account the restriction on the use of starch for sizing purposes under the Size Control Order (1943), had estimated the demand for starch at 50,000 tons per annum as shown below:-

Estimated demand.

<u>Consumption of starch</u>	<u>Tons</u>
Cotton textile mills (90%) ...	45,000
Paper mills (4%) ...	2,000
Jute mills (6%) ...	3,000
Total ...	<u>50,000</u>

The Board, however, stated that, if and when the Size Control Order were withdrawn, the consumption of different kinds of starch, excluding wheat starch, would probably increase to 75,000 or 80,000 tons per annum.

12. In the course of its second inquiry into the starch industry (1949), the Board again examined the matter, and after scrutinising the available data and in consultation

with the representatives of manufacturers, consumers and importers, estimated the demand at 55,000 tons per annum, the requirement of the cotton textile industry being increased from 45,000 tons to 50,000 tons and the shares of the paper and jute industries remaining unaltered at 2,000 tons and 3,000 tons respectively.

13. At the present inquiry, three different estimates were placed before the Board. Thus, while the All India Starch Manufacturers' Association put the demand at less than 45,000 tons, the Bombay Millowners' Association stated that the requirement of the cotton textile industry alone was 45,000 tons. The Sago Flour Importers and Dealers' Association, however, estimated the total demand at 60,000 tons per annum on the following basis:

	<i>Sago flour</i>	<i>Maize starch, farina dextrose, etc.</i>
	<u>Tons</u>	<u>Tons</u>
Cotton textile industry	40,000	8,000
Jute and paper industries	7,000	-
Other industries	5,000	-
	<u>52,000</u>	<u>8,000</u>
Total	<u>52,000</u>	<u>8,000</u>

We discussed these three estimates with the representatives of different interests who were present at the public inquiry. We have also examined the available data on this subject. Having regard to the fact that the average annual imports of all starches during the period from 1937-38 to 1911-12, when there was no Size Control, were about 42,000 tons, and after making due allowance for the consumption of indigenous wheat flour as starch, which is stated to have been used to some extent in the pre-war period, we consider that the demand for industrial starches may be put at 45/50,000 tons per annum.

14. An attempt was also made to assess the extent and nature of competition between sago flour and maize starch in respect of their use for sizing and finishing purposes in the cotton textile industry. In a statement published in the Bombay Chronicle, dated 29th June, 1951, the Bombay Millowners' Association had stated that the cotton textile industry required 15,000 tons of sago flour and 30,000 tons of other starches. In their oral evidence before the Board, the Bombay Millowners' Association explained that while sago flour was preferable for sizing coarse and medium yarns, maize starch was required for sizing fine and superfine yarns and also for purposes of printing and finishing. They also expressed the view that even if maize starch became cheaper than sago flour, they would prefer sago flour as the most suitable material for sizing coarse and medium yarns. The Association further stated that, of the total requirement of 15,000 tons of starch for the cotton textile industry, the essential demand for maize starch would be 8,000 to 10,000 tons, the remaining 35,000 to 37,000 tons being for sago flour. The Ahmedabad Millowners' Association in its written evidence stated that, out of the total starch requirement, the textile mills were meeting 75 per cent. of their requirement of starch for sizing purposes by means of imported sago flour. The matter was discussed at length at the public inquiry on 9th August, and from the opinions expressed on that occasion by the representatives of different interests, it appeared to the Board that, while, for finishing and printing purposes, as well as for sizing fine and superfine yarns, maize starch was preferable, for sizing coarse and medium yarns, the mills would be using either sago flour or maize starch, the extent of the use of the one or the other material depending upon their relative costs.

As the present structure of demand for various kinds of starch has been seriously distorted owing to abnormal factors, such as import control, irregularities of supplies



of maize starch and wide disparities in the relative prices of various starch materials, we may attempt to study the structure of the relative demand for different kinds of starch in the pre-war period, when conditions were fairly normal. During the five years from 1937-38 to 1941-42, while the average annual imports of all starches including sago flour amounted to about 42,000 tons, the corresponding figure for sago flour alone was about 21,000 tons, showing a ratio of 2:1. It may also be mentioned that during the above period, whereas the average c.i.f. price of maize starch was Rs. 9-2-0 per cwt., that of sago flour worked out to Rs. 6-3-0 per cwt., the difference between the two being about Rs. 3 per cwt., and the ratio of the two prices being 3:2. On the assumption that the imports of starch and sago flour in the pre-war period indicated a fairly normal structure of relative demand for the two materials, it would be fair to estimate that, if there were no wide disparity in the prices of the two articles and, further, if there were no difficulties regarding regular supplies of maize starch, the normal demand for sago flour would be of the order of 25,000 tons and that of other starches 20/25,000 tons.

The relative proportions of sago flour and other starches in the total consumption are, however, as already mentioned before, liable to considerable variations if there is a great disparity in the prices of the two classes of materials. At the present time, whereas the ex-factory selling prices of maize starches are Rs. 61 per cwt. for maize starch pearl, Rs. 64 per cwt. for maize starch powder and Rs. 71 per cwt. for thin boiling starch, the landed cost of sago flour is about Rs. 36 per cwt. With such a wide disparity between the costs of the two materials, there has undoubtedly been a marked tendency for substituting sago flour for maize starch over an extensive range of uses. Thus, whereas during the five years from 1937-38 to 1941-42, sago flour contributed 50 per cent. to the consumption of starches

in the country, the corresponding figures for the five years from 1946-47 to 1950-51 is as high as 92 per cent. (vide statement in paragraph 19 below).

15. The Board in its first Report on the starch industry (1947) stated that there were 24 registered factories with an estimated rated capacity of 58,000 tons of starch and 17 unregistered factories with a capacity of 15,000 tons of starch per annum. The production of the registered factories, according to the information supplied by the Textile Commissioner, was 16,973 tons in 1943, 24,144 tons in 1944 and 26,298 tons in 1945. Since 1946, however, owing to the non-availability of supplies of maize for the starch industry, there was a marked decrease in production. The figures relating to the rated capacity and actual production of the factories, which were in production, from 1947 to 1950, are given in the following table :

Production of starch - 1947 to 1950				
	<u>1947</u>	<u>1948</u>	<u>1949</u>	<u>1950</u>
1. Number of factories in production.	7	7	4	5
2. Their rated capacity (in tons)	30,720	28,800	17,400	18,300
3. Their actual production (in tons)	1,350	3,650	3,800	910
4. Production as percentage of capacity.	5	13	11	5

The above figures would show that during the four years from 1947 to 1950, production was extremely small; and it varied from 5 to 13 per cent. of the rated capacity of the factories actually in production. But, if we take the combined rated capacity of 58,000 tons for all the 21 registered factories, the percentage of actual production to rated capacity would vary from 1.6 per cent. to 6 per cent. only.

16. Recently, however, the situation has changed for the better. Taking advantage of the Government decision to

issue licences for imports of maize for the second half of 1950, the All India Starch Manufacturers' Association obtained such licences and were able to import 14,300 tons of maize in April, 1951. Besides, Messrs. Bharat Starch and Chemicals, who are not members of the All India Starch Manufacturers' Association, obtained licences for 3,000 tons and actually imported 2,400 tons of maize. The total quantity of maize imported in April, 1951, thus comes to 16,700 tons, which, at the rate of 1.8 tons of maize per ton of starch, would give a production of 9,270 tons of starch. Some production took place in April, but normal production really commenced in May, 1951. By the end of July, 1951, nine member factories produced 3,449 tons of starch, the average monthly rate being about 1,100 tons. Besides, Bharat Starch and Chemicals, who obtained 2,400 tons of imported maize, were also scheduled to go into production by the end of August, 1951, but the figures of their actual production were not available to the Board. A list of these ten factories, with the rated capacity of each, is given in Appendix II. It will be seen that the combined rated capacity of these ten factories comes to 29,100 tons per annum or about 2,400 tons per month. If their production is stepped up to 66 per cent. of the rated capacity, then they should be able to produce the balance of 5,900 tons of starch from the imported maize in about four months, that is, by the end of November 1951.

The imports of 17,700 tons of maize referred to above, are based on licences issued in 1950. Government have also issued licences in 1951 for further imports of 40,000 tons of maize. In its letter dated 24th August, 1951, the All India Starch Manufacturers' Association informed us that it has been negotiating for the purchase of (i) a shipload of 11,000 tons of maize held up at Colombo due to the ship's engine trouble, (ii) 6,000 tons of East African maize through the Marketing Board of the East African Government, and (iii) 10,000 tons of Manchurian maize. Should these negotiations be successful, there would be available for imports

27,000 tons of maize, giving a production of 15,000 tons of starch. We have received sufficient evidence to show that the Association has been earnestly endeavouring to procure foreign maize for importation into the country. Even as late as 19th September, 1951, however, the Association could not furnish the Board with any definite information as to whether any of the three lots of maize referred to above has been actually purchased and whether arrangements have been completed for importing such maize into India.

17. The import licensing policy for the period from  
 Import control 1st January, 1950 to 31st December, 1951, may  
 policy. be summarised as under:

(i) *Licensing period, January-June, 1950:*

Licences for sago flour, starch and farina were issued for imports from other currency countries (that is, countries other than dollar area, West Germany, Belgium and Japan) only, subject to monetary ceiling.

No licences whatsoever were issued for tapioca and tapioca flour.

(ii) *Licensing period, July-December, 1950:*

Licences for imports only from other currency countries (that is, countries other than dollar area, Belgium, West Germany and Switzerland) were issued as follows:-

*Sago flour:* 20 per cent. quota for established importers. Six months' requirements for actual users.

*Starch and farina:* 25 per cent. quota for established importers. Six months' requirements for actual users.

No licences whatsoever were issued for tapioca and tapioca flour.

(iii) *Licensing period, January-June, 1951:*

*Sago flour:* Licences for imports from soft currency areas to the extent of 20 per cent. quota for established

importers and six months' requirements for actual users were issued.

*Starch and farina:* Licences for imports from soft currency areas to the extent of 10 per cent. quota for established importers only were issued. No licences were to be issued for actual users except in very exceptional circumstances.

*Tapioca and Tapioca flour:* Licences for actual users and new comers for six months' requirements of tapioca from Indonesia only were issued.

(iv) *Licensing period, July-December, 1951:*

*Sago flour:* No licences are to be issued.

*Starch and farina :* January-June licences are to be doubled in value on presentation without fresh application. No further licences are to be issued.

*Tapioca and tapioca flour:* Licences for tapioca from Indonesia only are to be issued to the extent of 100 per cent. quota for established importers and six months' requirements for actual users and new comers.

18. (a) The following statement gives the figures of imports. imports (in tons) of (i) all starches including sago flour, (ii) sago flour alone, and (iii) the percentage of imports of sago flour to total imports of all starch:

Year	Total imports of all starches	Imports of sago flour only	Percentage of 3 to 2
	<u>Tons</u>	<u>Tons</u>	
1937-38	42,088	19,065	45%
1938-39	38,253	16,871	44%
1939-40	38,242	16,897	44%
1940-41	39,510	21,718	55%
1941-42	49,465	28,703	58%
(Imports of sago flour for the years 1942-46 not recorded)			

Year	Total imports of all starches.	Imports of sago flour only	percentage of 3 to 2
1946-47	26,059	22,713	87%
1947-48	31,306	23,631	75%
1948-49	43,814	35,124	80%
1949-50	39,768	26,232	85%
1950-51	47,411	39,631	83%
1951-52			
(2 months only)	8,423	7,047	93%

From the figures given above, it will be found that the average annual imports of all starches inclusive of sago flour in the five years from 1937-38 to 1941-42 were about 42,000 tons and those of sago flour alone about 21,000 tons. It will also be noted that the average annual imports of sago flour during the period were equal to those of all the other starches taken together. During the five years from 1946-47 to 1950-51, the average annual imports of all starches including sago flour were about 36,000 tons and those of sago flour alone 29,000 tons. For this period, the ratio of imports of sago flour to those of all other starches taken together was 80 : 20. This would show that there has been substitution of sago flour for other starches over a wide range of uses, the main reason being the greater disparity in the prices of the two materials in recent years than before the war.

(b) According to the information furnished by the Textile Commissioner's Office, for the period July-December, 1950 and January-June, 1951, the quantities of starch and sago flour licensed for imports and actually imported, respectively, are as follows:-

	Licensed for imports (in tons)		Actually imported (in tons)	
	July/Dec.1950	Jan./June 1951	Total (in Tons)	Up to end of June 1951
Starch (For Cotton textile mills)	2,800	3,200	6,000	3,800
Sago flour	16,900	22,700	39,600	18,913
Total:	19,700	25,900	45,600	22,713

From the above figures, it will be found that during the twelve months from July, 1950 to June, 1951, cotton textile mills obtained licences for importing 6,000 tons of starch, (consisting of maize starch, farina, tapioca, etc.) of which 3,800 tons were actually imported by June, 1951, the balance of 2,200 tons being due to be imported by the end of the current year. As for sago flour, 39,600 tons were licensed for imports, of which 18,913 tons were actually imported by June, 1951, the balance of 20,687 tons being due to be imported by the end of the current year.

19. (a) As stated in paragraph 16 above, the indigenous starch manufacturers have already imported 16,700 tons of maize, which, at the rate of 1.8 tons of maize per ton of starch, should give a production of 9,270 tons of starch. The actual production of nine member factories (that is, members of the All India Starch Manufacturers' Association) from April to 26th July, 1951, was 3,548 tons. Of this production, 1,786 tons were sold to the mills and 1,762 tons were in stock with the starch manufacturers at the end of July, 1951.

(b) As mentioned in the previous paragraphs, there were as at the end of June, 1951, outstanding licences for imports of 2,200 tons of starch and 20,687 tons of sago flour. For our present purposes, it may be presumed that imports of

starch and sago flour against such outstanding licences amounting to 22,887 tons will be made available during the remaining three months of the current year.

(c) In estimating current supplies, we have also to take into account stocks of starch with the cotton textile mills. The representatives of the Millowners' Association, Bombay, told us that most of the mills had only normal stocks of three or four months' requirements of starch. The representatives of the Ahmedabad Millowners' Association stated that although certain mills had as much as six months' requirements of starch, the average stock for all the mills would be equal to about three months' requirements. Two representatives of the starch manufacturers, who were themselves large millowners in Ahmedabad, however, told us that their own mills had six months' stocks of sago flour and two or three months' stocks of other starches. They also informed the Board that their salesmen, who had gone round to practically all the mills in Ahmedabad, had been told that the mills had huge stocks of sago flour and other starches and that they would not require to buy any starch for many more months. In the face of such conflicting evidence, it is not possible for us to arrive at any definite estimate of excess stocks of starches (that is, in excess of normal stock of three months' requirements) lying with the mills.

(d) We may, however, proceed to estimate the supply position on the basis of figures of imports and indigenous production. For the period July/December, 1950, licences were issued for imports of 2,800 tons of starch and 16,900 tons of sago flour, the total being 19,700 tons. We were informed that most of these licences were actually issued in October and November 1950. For the period January/June, 1951, licences were issued for imports of 3,200 tons of starch and 22,700 tons of sago flour, the total being 25,900 tons. Practically the entire quantity of imports, that is 45,600 tons, licensed for the two periods would presumably be available during a period of 15 months from



October, 1950 to December, 1951. To this we have to add 9,270 tons of starch already produced or to be produced from 16,700 tons of imported maize. The available supplies from these two sources would come to 54,870 tons. The estimated consumption during the period of 15 months from October, 1950 to December, 1951 would be about 62,500 tons. The balance of about 7,630 tons will have to come out of the stocks lying with the mills or out of indigenous production from the maize, which is proposed to be imported by the starch manufacturers. In the light of the evidence indicated above, we are led to the conclusion that by the end of December, 1951, an equilibrium between demand and supply is likely to be attained and that there would be no significant surplus left in the country.

(e) As regards 1952, it is not possible to state with any degree of definiteness what is likely to be the amount of indigenous supplies. Although the Starch Manufacturers' Association has been given licences for importing 40,000 tons of maize in 1951, no imports have actually taken place so far against such licences. As already mentioned before, the Association has been carrying on negotiations in respect of imports of 27,000 tons of maize from three different sources. Should these negotiations be successful so as to lead to the importation of the entire amount of 27,000 tons of maize by the end of 1951 or early in 1952, it will give only a production of 15,000 tons of maize starch. If the Association is able to arrange for importing not only the amount of 27,000 tons mentioned above but also the balance of 13,000 tons of maize, against their total licences amounting to 40,000 tons, by the end of 1951 or early in 1952, such imported maize should give a production of about 22,000 tons of starch in 1952.

We have been informed that the Textile Advisory Committee (No.3) has provisionally estimated that, taking into account the possible indigenous production and mill stocks, imports will be required to the extent of about 15,000 tons

of sago flour, of which 6,000 tons will be for the first half and 9,000 tons for the second half of 1952.

20. The Board in its Report on the continuance of protection to the Starch industry (September, 1949) had estimated that the fair selling price of indigenous starch for 1949-50 would be Rs. 41.07 per cwt. In arriving at this estimate, the Board had taken the cost of maize at the factory site at Rs. 313 per ton and allowed 1.8 tons of maize per ton of starch. The actual production of maize starch in the different factories in 1949 and 1950 was small and intermittent owing to lack of supplies of maize during those years. For the purpose of the present inquiry, therefore, it was not possible to arrive at a reasonable estimate of costs on the basis of actual costs incurred in 1949 or 1950. In agreement with the representatives of the starch industry, however, it was decided to take all conversion costs and overheads at the level fixed by the Board in its previous estimate for 1949-50 (vide 1949 Report, page 11), and only allow for an increase in cost on account of the higher price of imported maize. The landed cost of the maize imported in April and May, 1951, from the U.S.A., at the main ports came to Rs. 494.41 (as verified by the Cost Accounts Officer from the records of the All India Starch Manufacturers' Association). In 1949, it had been estimated by the Board that an amount of Rs. 40 was required to cover prices of gunny bags, packing charges, handling and freight from the ports to the factory site, less credit for used gunny bags. Allowing the same amount of Rs. 40 for gunny bags, etc., the current cost of imported maize at the factory site comes to Rs. 534.41 per ton. The Board's estimate of the current cost of production and fair selling price of indigenous maize starch, together with the previous estimate for 1949-50, is given below:-

S.No.	Items	Board's estimate for 1949-50 (Vide 1949 Report, Page 11.)	Board's estimate for 1951
		Rs. per ton	Rs. per ton
1.	Raw materials *	563.40	961.94
2.	Power and fuel		
	(a) Electricity	15.57	15.57
	(b) Coal etc.	20.31	20.31
3.	Labour	75.81	75.81
4.	Repairs and maintenance	45.30	45.30
5.	Consumable stores	51.92	51.92
6.	Establishment	26.34	26.34
7.	Depreciation	20.24	20.24
8.	Other overheads	22.81	22.81
9.	Packing charges	22.00	22.00
10.	Selling expenses	...	...
		863.70	1262.24
11.	Interest on working capital	17.27	25.24
		880.97	1287.48
12.	Credit for by-products	95.60	95.60
	Net cost per ton	785.37	1191.88
13.	Return on Block	36.00	36.00
	Fair selling price, ex-factory per ton.	821.37	1227.88
	Fair selling price, ex-factory per cwt.	41.07	61.39
<hr/>			
* Raw Material (Maize) Quantity (tons)		1.800	1.800
Rate per ton		Rs. 313.000	Rs. 534.410
Value		Rs. 563.400	Rs. 961.940

It may be mentioned that, on the basis of the higher cost of imported maize, the Textile Commissioner to the Government, under clause 9 of the Cotton Textiles (Control) Order, 1948, has fixed the ex-factory price of indigenous maize starch pearl at Rs. 61 per cwt., with effect from 5th May, 1951.

21. The c.i.f. prices of maize starch during the first half of 1951 varied from Rs. 38-0-0 per cwt. to Rs. 43-13-0 per cwt. The figure of Rs. 43-13-0 per cwt. was given by the All India Starch Manufacturers' Association, Bombay, in its letter dated 22nd May, 1951. In agreement with the representatives of the different interests present at the public inquiry, it was decided to take this figure of Rs. 43-13-0 as the c.i.f. price of imported maize starch for purposes of comparison with the fair-selling price of the indigenous article.

During the first half of 1951, the c.i.f. prices of farina powder imported from Holland varied from Rs. 29-10-0 per cwt. to Rs. 42-13-0 per cwt. At the suggestion of the All India Starch Manufacturers' Association, it was agreed that the current c.i.f. price of farina powder should be taken at Rs. 42-13-0 per cwt.

As regards sago flour (best pink), according to the information furnished by the All India Importers' Association, Bombay, the c.i.f. prices fluctuated from month to month in response to variations in demand. During the period from August, 1950 to July, 1951, such variations ranged from Rs. 26 per cwt. to Rs. 37-10-0 per cwt. It was agreed at the public inquiry that it would be fair to take the normal c.i.f. price of sago flour at the present time at Rs. 30 per cwt.

On the basis of the c.i.f. prices as mentioned above the current landed costs, ex-duty, are as follows:

## LANDED COST, EX-DUTY, PER CWT.

	Maize starch	Farina	Sago flour (best pink)
	Rs. a. p.	Rs. a. p.	Rs. a. p.
C.I.F. price per cwt.	43 13 0	42 13 0	30 0 0
Clearing charges	0 5 7	0 5 7	0 5 7
Landed cost, ex-duty.	44 2 7	43 2 7	30 5 7

22. The following figures give a comparison between landed costs, ex-duty, and fair selling prices of maize starch, farina and sago flour.

	Maize Starch	Farina	Sago flour (best pink)
	Rs. a. p.	Rs. a. p.	Rs. a. p.
1. C.I.F. price per cwt.	43 13 0	42 13 0	30 0 0
2. Clearing charges	0 5 7	0 5 7	0 5 7
3. Landed cost, ex-duty	44 2 7	43 2 7	30 5 7
4. Fair selling price, ex-factory.	61 6 3	61 6 3	61 6 3
5. Difference between 4 and 3	17 3 8	18 3 8	31 0 8
6. Difference as a percentage of 1.	39.33%	42.58%	103.47%
7. Existing rates of customs duty (inclusive of 5% surcharge).	21%	21%	21%
8. Duty asked for by the Association.	45%	48%	85%

23. The comparative figures given in the previous paragraph indicate a duty of 39.33 per cent. on maize starch, 42.58 per cent. on farina and 103.47 per cent. on sago flour. The present protective duty on each of the three articles is 21 per cent. *ad valorem*.

Measure of protection.

If the duty were to be raised to the level indicated by a comparison between the current landed costs and the fair selling prices, it would mean an increase in the rate of duty on maize starch by 18 per cent., farina by 22 per cent and sago flour by 82 per cent. If, however, in the case of sago flour, the duty were to be raised to only 85 per cent. as suggested by the Starch Manufacturers' Association, the increase in the duty would amount to 64 per cent.

The Starch Manufacturers Association contended that in order to give effective protection to indigenous starch, the duties on imported maize starch, farina and sago flour should be raised to the level as indicated by a comparison of the landed costs of imports and the fair selling prices of the indigenous articles. Normally, this would be the method for determining the protective duty required for the indigenous industry. In this particular case, however, imports are being regulated under the current import control policy in such a manner that the licensed quantities of imports are no more than what is required to fill the gap between demand and the indigenous production. Consequently, over a period of time, there will be no keen competition between the imported article and the indigenous product. As we have indicated in paragraph 19(d) above, owing to Government restriction on imports since July/December, 1950, there is likely to be established a fair equilibrium between demand and supply by the end of the current calendar year so as to minimise the competition of the imported articles with the indigenous product. We, therefore, consider that so long as the present import control policy is continued, there will be no need to increase the duties on maize starch, farina and sago flour.

24. (a) As stated earlier in paragraph 6, this inquiry was undertaken in response to an application from the All India Starch Manufacturers' Association for an enhancement of the protective duty on starch, farina and sago flour on the
- Desirability or otherwise of continuing protection.

ground that the cost of production of indigenous starch had increased appreciably owing to the increased cost of imported maize. We, however, consider that, although the fair selling price of indigenous starch has increased by about 50 per cent. over the Board's previous estimate of 1949, and although its comparison with the landed cost, ex-duty on imported starch, farina and sago flour indicates an appreciable enhancement of the duties, the current import control policy of Government is calculated to reduce the competition of the imported articles with the indigenous product. We have, therefore, come to the conclusion that there is no case for enhancement of duties under Section 4(1) of the Indian Tariff Act of 1934.

(b) The principal consumers of starch, namely, the cotton textile industry, whose representatives appeared before the Board, did not dispute the proposition that the indigenous starch industry should be kept alive by a suitable measure of protection. They, however, thought that, having regard to the present policy of restricting imports, there was no case for an enhancement of duties on starch, farina and sago flour. They also pointed out that whereas the price of sago flour was about Rs. 35 per cwt. the price of indigenous starch was as high as Rs. 61 to Rs. 64 per cwt. They contended that, so long as the disparity between the prices of imported sago flour and indigenous starch remains so wide as it is at present, the textile industry should not be compelled, through a drastic restriction of imports of sago flour, to substitute indigenous starch for such sago flour, as that would lead to an increase in the cost of textile manufactures. They, therefore, suggested that, until such time as the cost of imported maize became reasonably low, the importation of such maize and the production of starch based on it, should be kept within moderate limits. They, however, did not object to the continuance of the present quantum of protection to the starch industry.

(c) The Ministry of Food and Agriculture, Government of India, expressed the view that, having regard to the imperative necessity of conserving available foreign exchange for the importation of food-grains, and also in view of the availability of imported sago flour and indigenous tamarind kernel powder at much lower costs than indigenous starch for purposes of sizing cotton yarn, it would be extremely wasteful to use our foreign exchange for importing maize for the manufacture of starch in the country. The Ministry, therefore, suggested that the production of starch from maize should be permitted only on a small scale and that the balance of the requirement of sizing materials for the textile industry should be met from the imported sago flour and from tamarind kernel powder which could be manufactured in the country in sufficiently large quantities for this purpose. The Ministry also informed the Board that they would not support the proposal to import maize in an appreciable quantity for purposes of manufacturing starch. The Ministry also thought that, as imports of competing articles like sago flour, farina and starch were carefully regulated by Government, the existing level of duties should be adequate to protect the industry.

(d) We admit that there is a good deal of force in the contention put forward by the cotton textile industry that so long as a wide disparity between the prices of indigenous maize starch and imported sago flour continues, it would be undesirable to put a drastic restriction on imports of sago flour and thereby compel the textile mills to substitute maize starch for sago flour for sizing purposes, to a considerable extent. We also admit that the use of high-cost maize for the manufacture of starch on any appreciable scale would not be in the best interests of the country in the present circumstances. We have, however, ~~concluded~~ that the starch industry was started in ~~the country~~ on the basis of general assurance of protection ~~given~~ by Government in 1940 and specific assurance of ~~protection~~ ~~which it~~



this particular industry in 1944 and that during the war-time, when alternative sources of starch had dried up, the industry supplied substantial quantities of the article to the textile industry. Moreover, the amount of maize required to keep the industry at a reasonable level of protection should not exceed 50,000 tons, and this cannot be regarded as a significant quantity when compared with the total requirement of food-grains in the country. It is true that the cost of production of maize starch at the present time is abnormally high as compared with the prices of substitute products. The starch manufacturers, however, contended that the cost of maize is not likely to continue at the current level for any length of time. As a matter of fact, they have informed us that the cost of maize imports for which they are negotiating now is likely to be appreciably lower than the cost of the American maize which they had bought in the early months of 1951. Besides, it has been admitted by the spokesman of the cotton textile industry itself that, for sizing fine counts of yarn as well as for finishing and printing, maize starch is preferable to sago flour. It would, therefore, follow that a certain minimum quantity of maize starch would be required for the textile industry. It has also been pointed out to us that in countries like the U.K. and the U.S.A., where the starch industry has been developed on a considerable scale, it is fully supported even at the present time, despite the high cost of maize, because it provides the basis for a number of other valuable industries, such as, penicillin, oil, vitamins, dextrine, dextrose, glucose, paints, varnishes, sound proof boards, plastics, proteins and different kinds of valuable cattle feed. When these by-product and joint-product industries are established in the country, the cost of production of maize starch will be materially reduced. It is true that, so long as supplies of maize continue to be costly, inadequate and irregular, it will not be possible to develop the starch industry on a sufficiently large scale so as to permit the development of these other important industries. Even

so, we consider it to be in the long-term interest of the country to carry on the necessary experiments for the manufacture of various joint-products and by-products based upon the maize starch industry, so that when larger and cheaper supplies of maize are available after five or even ten years, these other important and valuable industries may be established in the country. It may be mentioned that a few of the more important starch factories are proposing to equip themselves for carrying on such experiments, at an early date. Having regard to these considerations and also in view of the assurance of protection given by Government in 1940 and 1944, we think it desirable that the existing protection should be continued and that all other assistance, such as reasonable allocation of maize and facilities for importation of machinery, should continue to be given to the industry.

(e) Our conclusion that there is no need at the present time to enhance the duties on imported starch, farina and sago flour is based upon the assumption that the current policy of restricting imports to the minimum quantity required to fill the gap between total demand and indigenous production of starch will be continued. Had there been no import control in respect of competing articles like farina, sago flour, etc., it would have been necessary, for purposes of affording effective protection to the industry, to raise the duties to a considerable extent. The present policy, which is a combination of moderate duties with regulation of imports, while affording adequate protection to the industry, serves to keep the burden of protection at the minimum level. The success of the present policy would, however, call for a large measure of co-operation between the cotton textile industry and the starch industry. The cotton textile industry has agreed that it is desirable to keep alive the indigenous starch industry by a moderate measure of protection. The present measure of protection can be adequate, provided the textile industry, in pursuance of what would

amount to its own enlightened self-interest, agrees to support the starch industry by lifting the present production of starch as to prevent its abnormal accumulation at the starch factories and to meet the balance of its requirement of sizing materials by importing sago flour. Should this voluntary co-operation from the textile industry not be forthcoming, and should the starch industry, in consequence, be unable to dispose of its products owing to excessive imports of sago flour and other starches, it may be necessary to review the position and perhaps raise the duties on imported starch, farina and sago flour. We, therefore, recommend that the All India Starch Manufacturers' Association should carry out negotiations with the cotton textile industry for the purpose of arriving at a reasonable basis for the absorption of the indigenous starch that may be produced from such imports of maize as may be allocated by Government from time to time.

25. In our first Report on the Starch Industry (1947), we had recommended that, in view of the acute food position prevailing in the country, research and developmental work on non-edible products like tamarind seed powder should be carried out to ascertain the potentialities of these materials, which were available in fairly large quantities, as a sizing agent (Vide paragraph 14 of the Report, 1947).

Tamarind kernel powder as a sizing material.

In connection with the present inquiry, we had addressed the Ministry of Commerce and Industry to inform us whether any steps had been taken by Government to implement the above recommendation. In a note dated 25th May, 1951, forwarded by the Ministry of Food and Agriculture, it was stated that the progress of research and developmental work on tamarind kernel powder had been extremely slow owing to non-availability of electric power in Bombay city where one of the more important manufacturers had his factory. Subsequently, the Ministry

forwarded a further memorandum in which it was pointed out that, in view of the acute food position in the country, it would be wasteful to use up maize for manufacturing starch, and it was also suggested that the starch factories should utilize their machinery for producing tamarind kernel powder instead of starch. The representatives of the Ministry also urged this point of view at the public inquiry held on 8th August 1951 and at a further meeting with the Board on 24th August 1951. They informed us that the Indian Standards Institution had already prepared a draft standard specification for tamarind kernel powder, and that this was now under consideration and would be ready for adoption in three months' time. They also stated that there are four factories in the country, viz., (i) Din Products, Bombay, (ii) Mysore Starch Manufacturing Company, Mysore, (iii) Patel Brothers Syndicate, Ahmedabad, and (iv) Bahns Chemical Works, Gwalior State, which had a combined capacity of 8,500 tons. It was further mentioned that the production of tamarind kernel in the country was of the order of 90,000 tons per annum.

The Ministry's representatives also assured the Board that tamarind kernel powder was quite suitable as a sizing material and, having regard to the availability of indigenous raw materials and also in view of the cheapness of the product, urged that, by way of affording a stimulus to the industry, the cotton mills should be required to consume at least 5,000 tons of tamarind kernel powder per annum for purposes of sizing.

Din Products, one of the manufacturers of tamarind kernel powder, informed us that a few mills have been regularly using tamarind kernel powder for sizing purposes and that the results of such use had been found to be satisfactory.

We discussed the matter also with the representatives of the cotton textile mills, who were present at the inquiry. They, however, told us that, though they would be prepared

to use tamarind kernel powder if it was found to be satisfactory, they did not know of the availability of supplies of suitable quality of this material. They, therefore, did not agree that tamarind kernel powder could be regarded as a substitute for sago flour or starch for purposes of sizing, at any rate, at the present stage.

In view of the conflicting evidence on this subject, we regret that we are unable to record any definite finding on it. We, however, agree that it would be in the interest of the country to establish a tamarind kernel powder industry on a sound footing. With this end in view, we recommend that Government should continue to encourage the research and developmental work on this material and that, if and when the results are found to be satisfactory, Government should take steps to enlist the co-operation of the cotton textile industry to popularize its use as a sizing agent, particularly in view of the availability of the raw material in the country and the comparative cheapness of the product.

26. Our conclusions and recommendations may be summarised as under:-  
 Conclusions  
 and  
 recommendations.

- (i) This inquiry was undertaken in response to an application from the All India Starch Manufacturers' Association for an enhancement of the protective duties on starch, farina and sago flour. [Paragraph 6]
- (ii) The demand for industrial starches is estimated at 45/50,000 tons per annum, of which the demand for sago flour would be about 25,000 tons and that for other starches about 20/25,000 tons. [Paragraphs 11 to 14]
- (iii) During the four years from 1947 to 1950, production of indigenous starch was extremely small owing to the non-availability of supplies of maize; and it varied from 5 to 13 per cent.

of the rated capacity of the factories actually in production. But, if the combined rated capacity for all the registered factories is taken into account, the percentage of actual production to rated capacity would vary from 1.6 per cent. to 6 per cent. [Paragraph 15]

- (iv) During the first half of 1951, 16,700 tons of maize were imported which should give a production of 9,270 tons of starch. Licences in 1951 were issued for further imports of 40,000 tons of maize. The All India Starch Manufacturers' Association has been carrying on negotiations for importing 27,000 tons of maize from three different sources. [Paragraph 16]
- (v) The import licensing policy in respect of starch, farina, tapioca and sago flour for the period from 1st January 1950 to 31st December, 1951, has been summarised in paragraph 17. [Paragraph 17]
- (vi) The average annual imports of all starches, inclusive of sago flour, in the five years from 1937-38 to 1941-42 were about 42,000 tons and those of sago flour alone about 21,000 tons. During the five years from 1946-47 to 1951-52, the average annual imports of all starches, including sago flour, were about 36,000 tons and those of sago flour alone were 29,000 tons. [Paragraph 18(a)]
- (vii) For the periods July/December, 1950 and January/June, 1951, licences were issued for imports of 6,000 tons of starch and 39,600 tons of sago flour. By the end of June, 1951, 2,200 tons of starch and 18,913 tons of sago flour were actually imported into the country. The balance of 3,800 tons of starch and

20,697 tons of sago flour are due to be imported against outstanding licences by the end of the current year. [Paragraph 18(b)]

- (viii) In the light of such evidence as was available to the Board, we have come to the conclusion that by the end of 1951, an equilibrium between demand and supply is likely to be obtained and that there would be no significant surplus left in the country. [Paragraph 19(d)]
- (ix) Owing to the increase in the price of imported maize, the fair selling price, ex-factory, of maize starch per cwt. has increased to Rs. 61.39 as compared with the Board's previous estimate of Rs. 41.07 per cwt. [Paragraph 20]
- (x) For purposes of determining the quantum of protection, the c.i.f. price of maize starch has been taken at Rs. 43-13-0 per cwt., farina at Rs. 42-13-0 per cwt. and sago flour at Rs. 30-0-0 per cwt. [Paragraph 21]
- (xi) On the basis of a comparison between the fair selling price of indigenous starch and the landed costs, ex-duty, of maize starch, farina and sago flour, the duties indicated are 39.33 per cent. for maize starch, 42.58 per cent. for farina and 103.47 per cent. for sago flour, as against the current rate of 21 per cent. in each of the three cases. [Paragraph 22]
- (xii) So long as the present import control policy is continued, there will be no need to increase the duties on maize starch, farina and sago flour. [Paragraph 23]

- (xiii) Having regard to the facts (a) that a categorical assurance of protection to the starch industry was given by Government in 1944, (b) that a certain minimum quantity of maize starch would be required for the textile industry in any case, (c) that the starch industry provides the basis for a number of other valuable industries, such as penicillin, oils, vitamins, dextrine, dextrose, glucose, paints, varnishes, sound-proof boards, plastics, proteins, and different kinds of valuable cattle feed, the Board thinks it desirable that the existing protection should be continued and that all other assistance, such as reasonable allocation of maize and facilities for importation of machinery, should continue to be given to the industry. [Paragraph 24(d)]
- (xiv) The present policy, which is a combination of moderate duties with the regulation of imports, while affording adequate protection to the industry, serves to keep the burden of protection at the minimum level. The present measure of protection, however, can be adequate, provided the textile industry, in pursuance of what would amount to its own enlightened self-interest, agrees to support the starch industry by lifting the output of starch so as to prevent its accumulation at the starch factories. [Paragraph 24(e)]
- (xv) As regards the suitability of tamarind kernel powder as a sizing material, we have received conflicting evidence on the subject and are unable to record any definite finding on it. We, however, recommend that Government should continue to encourage research and develop-



mental work on tamarind kernel powder and that, if and when the results are found to be satisfactory, Government should take steps to enlist the co-operation of the cotton textile industry to popularise its use as a sizing agent, particularly in view of the availability of the raw material in the country and the comparative cheapness of the product. [Paragraph 25]

27. We wish to express our thanks to the representatives of starch manufacturers, importers, and the cotton textile industry for their co-operation. We have received useful information from the Ministry of Food and Agriculture, Government of India, Office of the Textile Commissioner to the Government of India, Directorate General of Commercial Intelligence and Statistics, and Collectors of Customs, and our thanks are due to them. We have to make a special mention of Shri J. Banerjee and Shri N.K. Bhojwani, representatives of the Ministry of Food and Agriculture, and Dr. S.R. Ramachandran, Deputy Director, Office of the Textile Commissioner who appeared before us and gave valuable evidence. Shri R. Sundaram, Cost Accounts Officer attached to the Board, also assisted us in this inquiry.

H.L.DEY,  
*President.*

B.V. NARAYANASWAMY,  
*Member.*

M.A. MULKY,  
*Secretary.*

Bombay,  
4th October, 1951.

APPENDIX I  
(Vide paragraph 10)

List of persons who met the Board and gave oral evidence.

7th August, 1951.

CONSUMERS:

Mr. Neville N. Wadia	}	Representing the Mill-owners' Association, Elphinstone Building, Veer Nariman Road, Bombay 1.
Shri Krishnaraj M.D. Thackersey		

8th August, 1951.

PRODUCERS:

Shri Vadilal Lalubhai Mehta	}	Representing the All India Starch Manufacturers' Association, Post Box 1206, Bombay 1.
Shri Chinubhai Manibhai		
Shri S.B. Sethi		
Shri V.H. Dalmia		
Shri K.B. Parekh		
Shri M.D. Bajaj		
Shri M.L. Shah		
Shri O.M. Parikh		
Shri Anubhai Shah		
Shri K. Gopalaswamy		
Shri Rohitabhai Chinubhai		

Shri N.S. Bhathena	Representing the T.K.P. Manufacturing Association, 219, Frere Road, Bombay 1.
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IMPORTERS:

Shri Chinoobhai C. Javeri	}	Representing the All India Importers' Association, Churchgate House, Veer Nariman Road, Bombay 1.
Shri S.M. Shah		
Shri V.H. Hazarat		
Shri B.B. Sardeshpande	}	Representing M/s. Corn Products Co., P.O. Box 994, Bombay 1.
Mr. Paul Lopex		

Shri Keshavlal N. Bhatt

Representing the New Standard  
Chemicals Co.Ltd., 281, Samuel  
Street, Vadgadi, Bombay.

Shri Vadiatal B. Shah

Shri Shantilal G. Shah

Representing the Sago Importers  
& Dealers' Association, 222-A,  
Samuel Street, Bombay 3.

CONSUMERS:

Shri Nanddas Haridas

Representing the Ahmedabad Mill  
owners' Association, Lal Darwa,  
Post Box No. 7, Ahmedabad.

OFFICIALS:

Shri J. Banerjee,  
Dy. Inspector-General of  
Forests.

Representing Ministry of Food &  
Agriculture, New Delhi.

Dr. S. R. Ramachandran,  
Dy. Director.

Representing Textile  
Commissioner, Witter Road,  
Ballard Estate, Bombay.

24th August, 1951.

Shri J. Banerjee,  
Dy. Inspector-General of  
Forests.

Shri N.K. Bhojwani,  
Dy. Secretary to the  
Government of India.

Representing the Ministry  
of Food and Agriculture,  
Government of India,  
New Delhi.



APPENDIX II  
(Vide paragraph 16)

Statement showing rated capacities of starch factories which  
are in production.

Name of factory	Annual rated capacity in tons
1. Anil Starch Products Ltd., Ahmedabad	7,200
2. Bharat Starch & Chemicals Ltd., Abdullapur	4,800
3. Hindusthan Colour Chemicals & Mfg. Co. Ltd., Kathwada	6,000
4. Hargaon Starch Products, C/o Hargaon Sugar Mills Ltd., Hargaon (Sitapur)	1,800
5. Gwalior Maize Products Ltd., Mardsour (Gwalior)	3,000
6. Jaipur Maize Products, Jaipur	1,800
7. India Starch & Chemicals Ltd., Kalol (N.Gujrat)	1,200
8. Hyderabad Starch Products Ltd., Hyderabad (Deccan)	1,200
9. Union Starch & Chemicals Ltd., Balasinor (B.B. & C.I. Rly.)	900
10. Shree Narendra Singhji Industrial Corporation Ltd., Dohad (B.B. & C.I. Rly.)	1,200
TOTAL	29,100



सत्यमेव जयते